

# IC Application Note No. M-3

**Title:** Phosphate in produced water applying IC/MS coupling after sample preparation by inline dialysis

**Summary:** Determination of phosphate in produced water containing up to 100 g/L chloride as well as crude oil applying anion chromatography with conductivity and MS detection after inline dialysis.

**Sample:** Produced water containing up to 100 g/L chloride as well as crude oil

**Sample Preparation:** Dilution 1 : 50 in ultrapure water, cation exchange by H<sup>+</sup> cartridge and subsequent inline dialysis.  
Standards are prepared in 2 g/L sodium chloride

**Column:** 6.1006.520 Metrosep A Supp 5 – 150

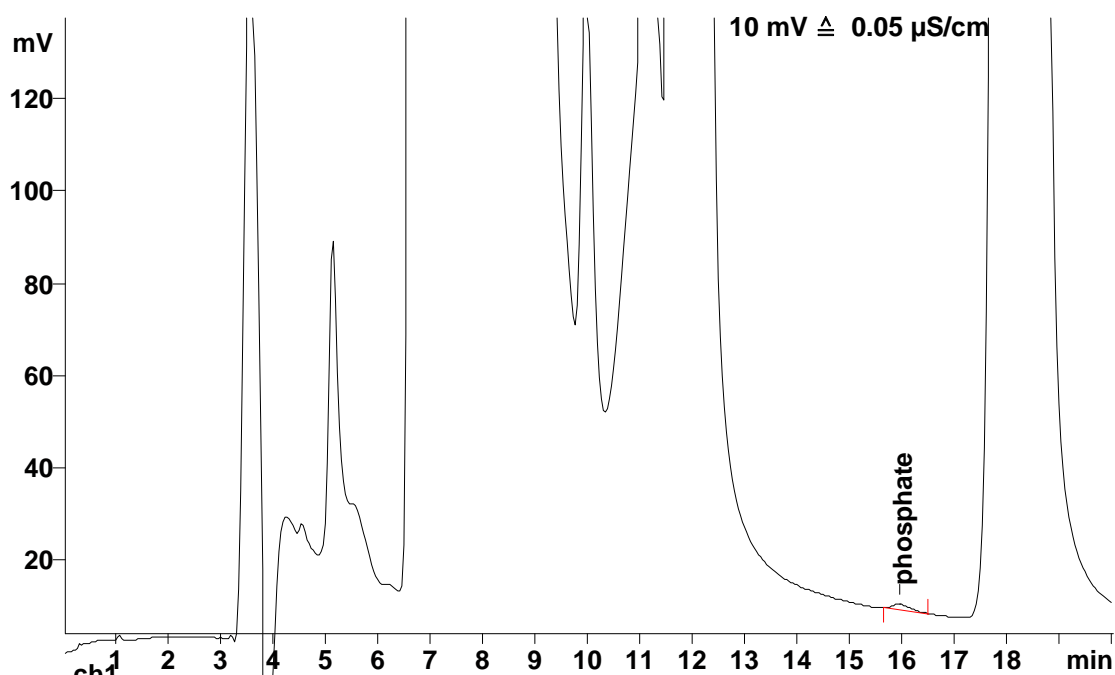
**Eluent:** 3.2 mmol/L sodium carbonate  
1.0 mmol/L sodium hydrogencarbonate

**Suppressor:** Metrohm Suppressor Module (MSM, 50 mmol/L sulfuric acid)

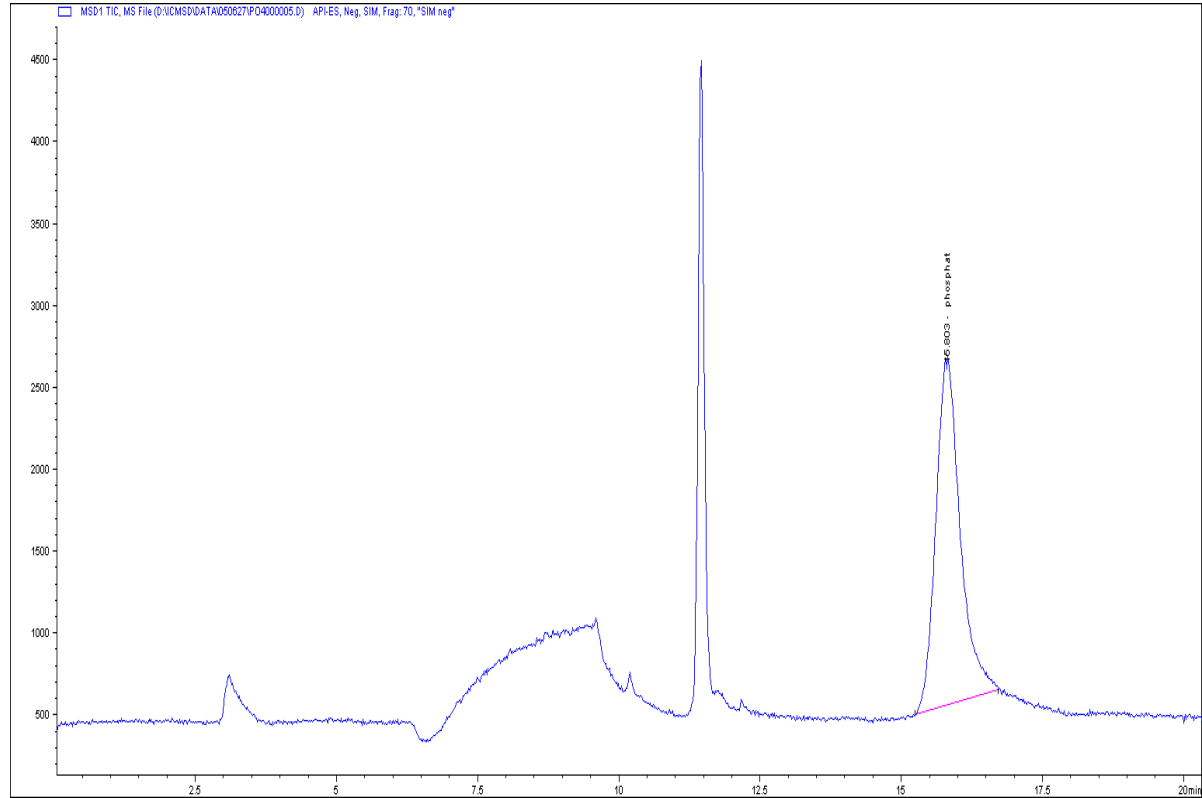
**Flow:** 0.5 mL/min

**Injection Volume:** 100  $\mu$ L

Conductivity detection:



MS detection:



**Results:**

Phosphate  
µg/L

**50.67**